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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,330	06/23/2003	Kyung-Geun Lee	1293.1633	6586

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EXAMINER	
DANIELSEN, NATHAN ANDREW	
ART UNIT	**PAPER NUMBER**
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,330	LEE ET AL.	
	Examiner	Art Unit	
	Nathan Danielsen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8-12,20-24,26 and 31-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8-12,20-24,26 and 31-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 8-12, 20-24, 26, 31-38 are pending. Claims 3, 14, and 19 have been canceled in applicant's amendment filed 23 February 2007. Claims 2, 4-7, 13, 15-18, 25, and 27-30 have been canceled in applicant's amendment filed 07 August 2007.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 9, 12, 21, 24, 26, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al (US Patent Application Publication 2002/0024923; hereinafter Ohno), in view of Maeda (US Patent 5,337,295).

Regarding claims 1, 12, and 32, Ohno discloses an information storage medium (and corresponding methods of recording/reproducing and operating) comprising:

a user data area provided with a sequence of basic recording units to record user data (figures 1, 6, and 7),

wherein information about the user data area, where user data is recorded, is recorded in at least one of an area right before and an area right after each basic recording unit of the user data area, disposed between successive basic recording units in the user data area (figures 6 and 7), and

wherein the information about the user data area is recorded in at least one of a run-in area and a run-out area that is right before and after the basic recording unit, respectively (figure 7; where ¶ 64 suggests that the ADR and dummy blocks have the same purpose as the run-out blocks, which is to protect the user data blocks (¶ 18)).

However, Ohno fails to disclose where the basic recording unit of the user data area is a physical cluster.

In the same field of endeavor, Maeda discloses where a basic recording unit of user data is a physical cluster (figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the recording format of Ohno with that of Maeda, for the purpose of simplifying the data recording process (col. 9, lines 23-26).

Regarding claims 9 and 21, Ohno, in view of Maeda, discloses everything claimed, as applied to claims 1, 12, and 13. Additionally, Ohno discloses where the information about the user data area is recorded using addresses (figures 6 and 7).

Regarding claim 24 and 26, Ohno, in view of Maeda, discloses everything claimed, as applied to claim 1. Additionally, Ohno discloses where the information storage medium is one of recordable and reproduction-only optical discs (¶s 102 and 105).

Regarding claims 33 and 35, Ohno, in view of Maeda, discloses everything claimed, as applied to claim 32. Additionally, Ohno discloses where the method of claim 32 further comprises recognizing a layer of the storage medium based on the accessed information, wherein the operating of the storage medium includes recording and/or reproducing data with respect to the layer (inherent in the apparatus capable of recording on/reproducing from the single-layer recording medium of figures 1, 6, and 7; where, when reproducing information from the single layer, any successful attempt to reproduce the information cause the apparatus to recognize it as a recording layer).

Regarding claim 34, Ohno, in view of Maeda, discloses everything claimed, as applied to claim 33. Additionally, Ohno discloses where the recognizing of the layer comprises recognizing the layer in response to the accessed information belonging to a predetermined group of addresses (inherent in the apparatus capable of recording on/reproducing from the single-layer recording medium of figures 1, 6, and 7; where, when reproducing information from the single layer, any successful attempt to reproduce the information cause the apparatus to recognize it as a recording layer to which is assigned a certain range of address values).

4. Claims 8, 10, 11, 20, 22, 23, 31, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno, in view of Ito et al (US Patent 5,881,032; hereinafter Ito).

Regarding claims 8, 10, 20, and 22, Ohno, in view of Maeda, discloses everything claimed, as applied to claims 1 and 13. However, Ohno, in view of Maeda, fails to disclose where the storage medium has two layers and the details of distinguishing between them.

In the same field of endeavor, Ito discloses where the information storage medium has at least two information storage layers (figures 1D-4 and 12), and the information about the user data area is recorded in at least one of the area right before and the area right after the basic recording unit of the user data area (see claims 1, 12, and 13) in different patterns for the different information storage layers (col. 2, lines 7-8 and figure 4; where each layer has a predetermined range of addresses, where the sector addresses increase from lead-in to lead out areas on layer one and continue according to the solid black lines in the positive sector address direction, and where each address is represented on the disk by a different pattern).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the structure of the disc of Ohno to accommodate the multiple layers of Ito, for the purpose of increasing the storage capacity of the disc (col. 2, lines 17-21).

Regarding claims 11 and 23, Ohno, in view of Maeda and Ito, discloses everything claimed, as applied to claims 10 and 22, respectively. Additionally, Ohno discloses where the information about the user data area is recorded using addresses (figures 6 and 7).

Regarding claim 31, Ohno, in view of Maeda and Ito, discloses everything claimed, as applied to claim 8. However, Ohno, in view of Maeda, fails to disclose how the patterns differ between layers.

In the same field of endeavor, Ito discloses where the different patterns are one of different consecutive patterns of identical intervals and different patterns of different sized intervals (col. 2, lines 6-11 and figure 11; where each address is represented on the disk by a different pattern of different sized intervals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the format and structure of the disc of Ohno with that of Ito, for the purpose of determining which layer is to be recorded on/reproduced from (col. 4, line 58 through col. 5, line 2).

Regarding claim 36, Ohno, in view of Maeda and Ito, discloses everything claimed, as applied to claim 35. However, Ohno, in view of Maeda, fails to disclose how to discriminate between multiple recording layers.

In the same field of endeavor, Ito discloses where the identifying of the desired layer comprises:

recognizing a storage layer of the storage medium as the desired layer in response to the accessed information belonging to a predetermined range (inherent in the different range of addresses assigned to each layer, as illustrated by figures 3 and 4); and

in response to the accessed information not belonging to the predetermined range, accessing another storage layer of the storage medium so as to determine whether accessed information thereof belongs to the predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the format and structure of the disc of Ohno with that of Ito, for the purpose of determining which layer is to be recorded on/reproduced from (col. 4, line 58 through col. 5, line 2).

Regarding claim 37, Ohno, in view of Maeda and Ito, discloses everything claimed, as applied to claim 36. Additionally, Ohno discloses where the operating of the storage medium includes recording and/or reproducing data with respect to the desired layer (inherent in a reproducing device).

Regarding claim 38, Ohno, in view of Maeda and Ito, discloses everything claimed, as applied to claim 35. However, Ohno, in view of Maeda, fails to disclose how to discriminate between multiple recording layers.

In the same field of endeavor, Ito discloses where the method of claim 32 further comprises identifying storage layers of the storage medium, wherein the identifying of the storage layers comprises:

recognizing a first layer of the storage layers in response to the accessed information belonging to a first predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8);

in response to the accessed information not belonging to the first predetermined range, accessing a second layer of the storage layers so as to determine whether accessed information thereof belongs to a second predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8);

recognizing the second layer of the storage layers in response to accessed information thereof belonging to the second predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8); and

in response to the accessed information of the second layer not belonging to the second predetermined range, accessing another layer of the storage layers so as to determine whether accessed information thereof belongs to the second predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the format and structure of the disc of Ohno with that of Ito, for the purpose of determining which layer is to be recorded on/reproduced from (col. 4, line 58 through col. 5, line 2).

Response to Arguments

5. Applicant's arguments filed 07 August 2007 have been fully considered but they are not persuasive.

a. Regarding applicant's argument that "Ohno does not disclose or suggest what constitutes a basic recording unit or whether the packets are basic recording units as claimed in claim 1", the examiner disagrees. Ohno discloses where the packet is a basic recording unit comprised of smaller recording units (blocks), which is equivalent to applicant's claimed physical clusters since it is well known that physical clusters are comprised of a plurality of smaller recording units (sectors) (see the Wikipedia article at http://en.wikipedia.org/wiki/Cluster_%28file_system%29). Additionally, physical clusters have a structure similar to the well-known ECC block in that ECC blocks are also comprised of a plurality of smaller recording units (frames). Thus, Ohno in fact discloses a basic recording unit (the "packet") and areas preceding and following each basic

recording unit in which information about the user data is recorded (run-in and run-out areas). Therefore, the rejection is still deemed proper and is hereby maintained.

b. Regarding applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "providing user data in an area right before and right after each basic recording unit") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Citation of Relevant Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Kawashima et al (US Patent Application Publication 2001/0036138) and Mimnagh et al (US Patent 6,118,741) disclose a program area (comprised of a plurality of frames) preceded by run-in blocks and followed by run-out blocks;

b. D'Amato et al (US Patent 6,226,241) disclose a method of recording data where packets, preceded by run-in blocks and followed by run-out blocks, are recorded; and

c. Lee et al (US Patent 7,269,104 and US Patent Application Publication 2003/0214890) disclose at least applicant's independent claims.

Closing Remarks/Comments

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen
10/02/2007

/William Korzuch/
SPE, Art Unit 2627